AMENDMENTS TO THE SPECIFICATION

The paragraph beginning on page 4, line 15 has been amended as follows:

B1

The magnetization characteristics of the magnetic layers of each MTJ memory cell significantly affect the memory cell characteristics. In particular, when a change in magnetization direction for data storage becomes less likely to occur in the tunnel magnetic resistive element TMR due to end effects of the magnetic element or the like, the magnetic field required for the data ~~read~~ write operation is increased, causing increase in power consumption and magnetic noise due to the increased data write current. Moreover, a variation in electric resistance value depending on the storage data level is reduced, causing reduction in signal margin in the data read operation.

The paragraph beginning on page 5, line 16 has been amended as follows:

B2

In summary, according to the present invention, a thin film magnetic memory device formed on a semiconductor substrate includes a plurality of memory cells for storing data. Each memory cell includes an access element rendered conductive for forming a path of a data read current, and a magnetic storage portion coupled in series with the access element and having an electric resistance varying according to storage data. The thin film magnetic memory device further ~~compress~~ comprises a first magnetic layer formed on the semiconductor substrate and having a fixed magnetization direction, a second magnetic layer formed on the semiconductor substrate and magnetized in a direction according to an externally applied magnetic field, and an insulating film formed between the first and second magnetic layers. The magnetic storage portion is formed using a prescribed partial region in a planar direction of the second magnetic layer.

The paragraph beginning on page 23, line 22 has been amended as follows:

As a result, in a memory cell that includes, as the free magnetic region 103, a region having such characteristics as those of the ~~easy~~ hard axis region, a sufficient variation in electric resistance value corresponding to the storage data level cannot be ensured in the data read operation, making it difficult to ensure a signal margin. Moreover, in the data write operation, an increased magnetic field must be applied in order to sufficiently invert the magnetization direction, resulting in an increased data write current. As a result, current consumption as well as magnetic noise are increased.

B3

The paragraph beginning on page 47, line 24 has been amended as follows:

For example, the column selection gate CSG1 includes a transistor switch electrically coupled between the data bus DB and bit line BL1, and a transistor switch electrically coupled between the data bus /DB and bit line /BL1. These transistor switches are turned ON/OFF according to the voltage level on the column selection line CSL1. More specifically, when the column selection ~~gate~~ line CSL1 is activated to the selected state (H level), the column selection ~~gates CSL1~~ gate CSG1 electrically ~~couple~~ couples the data buses DB and /DB to the bit lines BL1 and /BL1, respectively. The column selection gates corresponding to the other memory cell columns have the same structure.

B4

The paragraph beginning on page 66, line 10 has been amended as follows:

The tunnel magnetic resistive element TMRdb in the dummy memory cell DMCb has the same shape as that of the tunnel magnetic resistive element TMR in the memory

B5

cell. However, the tunnel magnetic resistive element TMRdb is arranged n the chip with its longitudinal and lateral directions reversed with respect to those of the tunnel magnetic resistive element TMR in the memory cell. In other words, the tunnel magnetic resistive element TMRdb is rotated by 90° in the horizontal ~~direction~~ plane of the figure with respect to the tunnel magnetic resistive element TMR in the memory cell. The free magnetic layer 103 is magnetized in the longitudinal direction, whereas the fixed magnetic layer 102 is magnetized in the direction perpendicular to that of the free magnetic layer 103.